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Kang Soo Seo

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EXAMINER

ZHAO, DAQUAN

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/674,507	Applicant(s) SEO ET AL.	
	Examiner DAQUAN ZHAO	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/9/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 1/9/2009 have been fully considered but they are not persuasive.

Applicant argues, Kim does not teach associating a single graphic image (sub picture data) with a plurality of different **main video images**. The examiner disagrees.

Kim teaches in column 7, line 47- column 8, line 8 and figure 14, the sub-picture data is associated with the video title, wherein the video title has to contain "different main video images", such as plurality of video frames. Applicant argue, in the page 10 of the remark, Kim fail to teach Kim does not teach associating a single sub picture data with **multiple portions of moving picture data**. However, claims only require **"plurality of different main video images"**.

Specification

2. The amendment filed on 1/9/2009 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "a computer-readable medium" is not in the original disclosure.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 16-24 are rejected under 35 U.S.C. 101 because claims are directed to non-statutory subject matter.

For claim 16, the examiner is treating the term “computer-readable radium” as a signal since the **original** specification has no antecedent basis for this term, “computer-readable medium”.

Claims 17-24 incorporate the same deficiency as set forth in claim 16 above.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 25 is rejected under 35 U.S.C. 102(e) as being anticipated by Kim (US 6,754,435 B2).

For claim 25, Kim teaches a method of reproducing graphic data stored on a computer-readable medium, comprising:

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Reading graphic link information stored in a first file on the computer-readable medium (The examiner interprets the "navigation pack" of Kim as the claimed graphic link information because the sub-picture search table is created base on the "logical block number of the start location of the navigation pack", see column 5, lines 31-41. Also in figure 5, the Navigation Pack, audio pack, video pack and the sub-picture are stored in the DVD in separate blocks, and the examiner interprets each block as a "file". Therefore, the Navigation data pack, the main video data pack, and the sub-picture are stored in the DVD under separate files), the graphic link information link a graphic image stored in a second file separate from the first file with a plurality of main video images (column 7, line 47- column 8, line 8 and figure 14, the sub-picture data is associated with the video title, wherein the video title has to contain "different main video images", such as plurality of video frames), the plurality of main video images and the graphic image being stored on the computer-readable medium (e.g. figure 4, the Video Object (VOB) as shown in figure 4 is the main video data in the convention DVD art, wherein the VOB has to contain plurality of frames); and reproducing a main video image overlaid with at least one graphic image based on the reading of the graphic link information from the computer-readable medium (column 7, line 47- column 8, line 8 and figure 14, the sub-picture data is associated with the video title, wherein the video title has to contain "different main video images", such as plurality of video frames, the sub-picture data has to be overlay on the main video data).

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Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 6,754,435 B2) and further in view of Burgess et al (US 7,110,137 B2).

Regarding claim 1, Kim teaches a method of recording graphic data on a recording medium, comprising:

(a) recording a plurality of graphic images pertaining to a main video image separately with the main video image (e.g. figure 4 and column 3, lines 52-67, the sub-picture data, which corresponds to the "graphic images", is recorded in the disk "separately with" the video data); and

(b) recording graphic link information to link the plurality of graphic images with the main video image for overlaying the main video image with the plurality of graphic images, wherein the graphic link information and the graphic images are stored in separate files (The examiner interprets the "navigation pack" of Kim as the claimed graphic link information because the sub-picture search table is created base on the "logical block number of the start location of the navigation pack", see column 5, lines 31-41. Also in figure 5, the Navigation Pack, audio pack, video pack and the sub-picture are stored in the DVD in separate blocks, and the examiner interprets each block as a "file". Therefore, the Navigation data pack, the main video data pack, and the sub-

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picture are stored in the DVD under separate files), and wherein a piece of the graphic link information associates a single graphic image with a plurality of different main video images (column 7, line 47- column 8, line 8 and figure 14, the sub-picture data is associated with the video title, wherein the video title has to contain "different main video images" such as plurality of video frames).

However, Kim fails to teach graphic images having different color depths. Burgess et al teach graphic images having different color depths (e.g. figure 5, column 5, line 55- column 6, line 4, the foreground image has different color depth). It would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate the teaching of Burgess et al into the teaching of Kim to permit greater and/or more efficient compression by eliminating unneeded color specifying bits per pixel and/or faster compression and rendering performance (Burgess et al, column 6, lines 1-4).

8. Claims 6, 16, 2, 3, 15, 24, 8, 18, 9, 19, 10, 20, 11, 21, 12, 13, 14, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 6,754,435 B2) and Burgess et al (US 7,110,137 B2) as applied to claim 1 above, and further in view of Ochiai et al (US 2005/0,180,734 A1).

See the teaching of Kim and Burgess et al above.

Regarding to claims 6 and 16, Kim teaches, in column 5, lines 17- 22, and column 7, lines 24-41, the "sub-picture search table", which corresponds to the graphic link information as claimed, shown in figure 12 is stored in the hard disk 40 as a file.

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However, Kim and Burgess et al fail to specify files can be placed under a specific directory defined by a file structure of the recording medium or under at least one subdirectory created below the specific directory. Ochiai et al teach files can be placed under a specific directory defined by a file structure of the recording medium or under at least one subdirectory created below the specific directory (e.g. figure 9, paragraph [0159]). It would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate the teaching of Ochiai et al into the teaching of Kim to place the graphic image file and the graphic link information file under a specific directory defined by a file structure of the recording medium or under at least one subdirectory created below the specific directory for easily rewriting the data and achieve high reliability in when the data is reproduced (e.g. Ochiai et al, paragraph [0163]-[0165]).

For claim 2, Ochiai et al teach plurality of graphic images and graphic link information are grouped based on the said main video image (e.g. paragraph [0158]-[0159], claim reads on the subdirectory because the subdirectory is for grouping).

For claims 3, 15 and 24, Ochiai et al teach said plurality of graphic image and graphic link information are grouped based on the a title or a playlist of the recording medium (e.g. [0161], "SMoo" is consider to be a title for the sub-directory).

For claims 8 and 18, Ochiai et al teach the subdirectory is created for each group of the graphic image files (e.g. paragraph [0158]-[0159], subdirectory).

For claims 9 and 19, Ochiai et al teach the single graphic image is organized to the single graphic file (e.g. figure 9, DCIM). The number of graphic image does not make any patentable difference.

For claims 10 and 20, Ochiai et al teach all of the graphic image to constitute a plurality of main video images are organized to the single graphic image file (e.g. figure 9, "MSxxx" moving image file).

For claim 11 and 21, Ochiai et al teach plurality of the graphic image pertaining to same group are organized to the single graphic image file (e.g. "DCIM", still image file storage directory).

For claims 12, 13, 14, 22 and 23, Kim teach, column 5, lines 45-50, and figure 14, "the sub-picture search table", corresponding to the "link information" as claimed, link the moving picture with the sub-picture. Also see column 7, lines 41-60, the number of main video image does not make any patentable different.

9. Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 6,754,435 B2), Burgess et al (US 7,110,137 B2) and Ochiai et al (US 2005/0,180,734 A1), as applied to claims 6, 16, 2, 3, 15, 24, 8, 18, 9, 19, 11, 21, 12, 13, 14, 22, 23, 1above, and further in view of Russ (US 5,446,857).

See the teaching of Kim, Burgess et al, and Ochiai et al above.

For claims 7 and 17, Kim, Burgess et al, and Ochiai et al fail to teach the read-only directory, Russ teach the read-only directory (e.g. column 7, lines 53-59). It would have been obvious to one ordinary skill in the art at the time the invention was made to

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have incorporate the teaching of Russ into the teaching of Kim, Burgess et al, and Ochiai et al to record the file directory in the Read-only memory to protects files from being overwritten in subsequent operations.

Applicant's amendment necessitated the new ground(s) of rejection presented in this office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEG § 706.07 (a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136 (a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing data of this action. In the event a first reply is filed within TWO MONTHS of the mailing data of this action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period. Then the shortened statutory period will expire on the data the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing data of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the data of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daquan Zhao whose telephone number is (571) 270-1119. The examiner can normally be reached on M-Fri. 7:30 -5, alt Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Thai Q, can be reached on (571)272-7382. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daquan Zhao/
Examiner, Art Unit 2621

/Thai Tran/

Supervisory Patent Examiner, Art Unit 2621